Wisconsin State Legislature

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Joint Committee on Finance
100TH ANNIVERSARY 1911 - 2011

MEMORANDUM

To: Members
Joint Committee on Finance

From: Senator Alberta Darling
Representative Robin Vos

Date: June 24, 2011

Re: University of Wisconsin System Report to JFC

Attached is a report on the Wisconsin Small Company Advancement Program (WiSCAP) from the University of Wisconsin System, pursuant to s. 36.25(52)(c), Stats.

This report is being provided for your information only. No action by the Committee is required. Please feel free to contact us if you have any questions.

Attachments

AD:RV:jm

UNIVERSITY OF WISCONSIN SYSTEM

Vice President for Finance

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1220 Linden Drive
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June 15, 2011

Robert J. Marchant, Senate Chief Clerk
B20SE State Capitol Building
Madison, WI 53707

Patrick E. Fuller, Assembly Chief Clerk
17 W. Main, 401 Risser Justice Center
Madison, WI 53703

Dear Sirs:

2009 Wisconsin Act 265 authorized the WiSys Technology Foundation to conduct the Wisconsin Small Company Advancement Program (WiSCAP) and appropriated $2 million in funds under s. 20.285(1)(cd), Wisconsin Statutes. The program was formulated to utilize the considerable technical expertise of faculty and staff members working at University of Wisconsin System comprehensive campuses in helping small, Wisconsin-based companies meet their research and development needs.

Section 36.25(52)(c) Wisconsin Statutes requires the Board of Regents of the University of Wisconsin System to report on the program's activities at least annually to the Joint Committee on Finance and the Chief Clerks of both houses of the Wisconsin Legislature. This required report is attached for your information and distribution to appropriate members of the legislature (i.e., JCF and standing committees on Higher Education).

Please contact Dr. Maliyakal John, Managing Director of the WiSys Technology Foundation at (608) 265-2135 if you have any questions related to this report.

Sincerely,

Deborah A. Durcan
Vice President for Finance

c: President Reilly
President's Cabinet
WiSys Managing Director Maliyakal John

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* Referred to joint committee on Finance

WISCONSIN SMALL COMPANY ADVANCEMENT PROGRAM (WISCAP)

2010 ANNUAL REPORT

EXECUTIVE SUMMARY

BACKGROUND

The 2009 Wisconsin Act 265 authorized WiSys Technology Foundation to conduct the Wisconsin Small Company Advancement Program (WiSCAP) and appropriated $2 million in funds under s. 20285(1)(cd), Wis. Stats. WiSCAP is formulated to utilize the considerable technical expertise residing in the UW comprehensive campuses to serve the innovation needs of small companies lacking research and development resources. Thus, WiSCAP connects small companies throughout the state to faculty at the UW comprehensive campuses in a combined effort to solve the following challenges in high-tech research, development, education, and job creation:

- While small companies represent a powerful engine for job growth in the country, many have ideas for next generation products but lack the funds, research facilities, and technical expertise to develop and test new products.
- UW System comprehensive campuses have approximately 400 faculty members with technical expertise and resources currently not engaged in product-oriented research.
- A majority of the approximately 90,000 students in the comprehensive campuses do not have opportunities for training in product-oriented, high-tech research, a necessity to compete for high-paying jobs in new knowledge-based businesses.

REQUESTED ACTION

This item is for information only.

DISCUSSION

The Wisconsin Small Company Advancement Program (WiSCAP) initiative was included in the C.O.R.E. Jobs Act bill authored by Senator Julie Lassa and Representative Louis Molepski, Jr. The legislation, formally known as Connecting Opportunity, Research, and Entrepreneurship or the Wisconsin C.O.R.E. Jobs Act, received broad bipartisan support and was signed into law by Governor Jim Doyle on May 10, 2010. The act aims to create new high-tech jobs and businesses, strengthen and expand existing Wisconsin businesses, and educate and train the state's workforce.

The objective of WiSCAP is to fulfill the unmet research and development needs of small companies by connecting them to the underutilized technical expertise of comprehensive campus

faculty and students. WiSCAP is expected to lead to the development of joint intellectual property, marketable products, new job creation and long-term revenue for the campuses. The state allocated $2 million to WiSCAP to be spent by June 2012 to support research and development projects important for Wisconsin small companies.

Through 2010, eight projects have been approved with approximately $670,000 in funding allocated. These projects will create six jobs and pay for 3,364 hours of student internships at UW campuses. Further discussions are ongoing with companies on new projects. It is unlikely that WiSCAP funding alone will be sufficient to get the products into the market; it is WiSys's intention to work with the companies and the individual campuses to seek additional extramural funds for further development.

WiSys has formulated detailed WiSCAP guidelines including a grant application process, selection criteria, project management and monitoring, and legal agreements. The attached Request for Proposal document outlines the eligibility requirements and the items taken into consideration prior to a funding decision. Discussions have been conducted with over two dozen Wisconsin companies since January 2010 regarding potential projects, intellectual property, marketing and revenue distribution. Approved and potential WiSCAP projects along with related companies and campuses are listed in Table 1 and Table 2 (pages 5-7).

WiSys has taken steps to manage the financial risk by setting up projects in two or more phases. Each phase is funded based on project progress and milestone achievement. The total budget for the eight approved projects (Table 1) is $668,643. Of this total, $472,107.50 is applied to Phase 1 funding; the remaining $197,535.50 will be allocated when the projects accomplish appropriate milestones.

WiSys is confident that in addition to the growth of the partner companies, the WiSCAP program will broaden technological knowledge, research capacity and discoveries on UW System campuses while enhancing the education of UW students through research and development programs.

WiSys began preparation to launch WiSCAP in January 2010 and identified two dozen small companies suitable for the initiative. Funding was authorized in May 2010 by the state and WiSys then developed legal documentation and administrative and procedural steps. WiSys hired a consultant and student intern to assist the WiSys team and began discussions with potential companies and campuses. The first WiSCAP project was initiated in July 2010 and an additional seven projects were launched by December 2010 with a total budget of $812,643. If successful, these projects will develop products useful for Wisconsin businesses and create up to 55 new high-paying jobs. The eight funded projects are working to develop the following products:

1) Development of a digital network and implantable biosensor to monitor stress-related health issues of dairy cattle (Mensa Systems, LLC of Menomonie, UW-River Falls and UW-Stout). This is an economically important technology for Wisconsin. The major objective is to develop a cost-effective digital network which will provide real-time alerts to Wisconsin dairy farmers when there are changes in the health status of their cattle, ultimately reducing cattle loss.

2) A high density energy storage and management system for automobiles and industrial uses (Oshkosh Nanotechnology, renamed as Shamrock Energy, of Oshkosh and UW-Oshkosh). This project generally represents the transformation we are seeing from large-scale manufacturing into high-value products. The project partners are committed to developing the manufacturing process in Wisconsin.

3) Production of high quality paper from recycled waste (Abba Makolin Waldron & Associates of Freedom and UW-Stevens Point). The project aims to make the Wisconsin paper industry more cost competitive by using low cost waste fibers to manufacture quality paper.

4) Nutraceuticals and antiviral agents from cranberries (Semba Biosciences, Inc. of Madison; Botanic Oil Innovations, Inc. of Spooner; and UW-Oshkosh). The cranberry project will benefit two companies by enabling Semba Biosciences to market specialized instrumentations and Botanic Oil Innovations to market specialized cranberry products.

5) Removal of mercury from fish to make fish consumption safer for humans and animals (Creative Culinary Solutions, Inc. of Hartland and UW-Whitewater). The project aims to develop a simple, cost-effective method to remove mercury from fish tissue and will be useful for both the fishing industry and recreational fishermen.

6) Development of a pressure balanced hydrogen fuel cell (Cool Sciences, LLC of Colfax and UW-Stout). Hydrogen fuel cells are an attractive, alternative clean-energy technology for electric vehicles producing energy from air and water. However, high costs – due to the need for computerized pressure-balancing and complexity of design and manufacturing – makes mass marketing difficult. The UW-Stout project will develop a simple pressure-balanced system to avoid the need for computerized pressure monitoring and will result in a low-cost product.

7) Xolve Inc. (Platteville) was formed based on a breakthrough technology developed at UW-Platteville to manufacture graphene, a nanomaterial from graphite. Graphene holds great promise in terms of improving the strength and other physical and chemical properties of industrial materials. The project will explore the combination of graphene and a proprietary composite obtained from Honda Motor Company, with the goal of developing super-strong and light-weight automotive body parts. If successful, Xolve will continue development with the Honda Motor Company.

8) VibeTech, Inc. of Sheboygan has teamed with UW-Stout to develop and test an innovative vibration therapy for patients otherwise unable to conduct exercise routines. An aging but active population has created a fast-growing market need for physical therapies. The VibeTech device is expected to be initially targeted to geriatric patients.

The timeframe to develop marketable products for these projects is estimated to be two to four years. However, there are immediate measureable outcomes:

- Supports 3,364 hours of student internship
- Supports seven high-paying jobs, including six at the comprehensive campuses
- Supports release time for 7 faculty to conduct research

- WiSCAP funding was leveraged to enable Xolve, Inc. to obtain $2 million in private equity funding
- WiSCAP funding was leveraged to enable Oshkosh Nanotechnology (re-named Shamrock Energy, LLC) to obtain $580K in private equity funding

Value added by WiSys

- Selection of technologies with significant potential for business growth and benefits to Wisconsin.
- Judicious cost containment, without affecting quality and project outcomes. Total budget request for eight projects was $1,204,447. After extensive discussions and consultation WiSys was able to reduce the project cost to $668,643 without sacrificing project outcomes.
- The WiSys team contributes on the average 115 hours per project to draft the application, which relieves the faculty and company from using their time and resources on the draft process including multiple meetings with the companies.
- A technology, patent, market and risk analysis is completed for each project.
- A phased approach to funding projects allows WiSys to monitor progress before funding the next phase.
- New discoveries are protected through WiSys, ensuring a competitive advantage for the Wisconsin company.
- Proactive interactions with the partner company ensure continued funding to develop and market the product through extramural funding opportunities.
- WiSys contributed services at a cost of $87,142 in 2010.

The table below summarizes the value match WiSys brings to WiSCAP by encouraging companies and participating campuses to contribute additional resources.

Total WiSCAP dollars allocated	Total Company in-kind contribution	Total UW campus contribution	Total WiSys contribution*	Total matching value for WiSCAP funding	Value match for each WiSCAP dollar
$812,643	$976,995	$56,373	$49,642*	$1,083,010	1: 1.33

*In 2010, WiSys spent a total of $87,142 for WiSCAP management (includes legal and travel costs along with salaries for consultant, student intern, manager and administrative assistant). Act 265 allows WiSys to charge $75,000 administrative cost. WiSys has credited $37,500 to the administrative cost of WiSCAP and contributed an additional $49,642 to WiSCAP.

In summary, WiSCAP is off to a robust start, engaging campuses and companies from all over the state. The projects are high-tech with significant market potential and will be beneficial to the people and companies of Wisconsin. WiSys is confident of successfully completing the initiative in 2011.

Table 1: Funded Projects

Company and Campus	Project Description	Potential Benefits
Mensa Systems, LLC. (Menomonie), UW-Stout, UW-River Falls	Develop an implantable biosensor and computer network to continuously monitor the health status of cattle in order to reduce animal loss due to heat stress.	There are 1.3 million dairy cattle in Wisconsin. Potential to create 4 new jobs.
Shamrock Energy, LLC. (Oshkosh), UW-Oshkosh	Develop a nanotechnology-based supercapacitor for energy storage and management in automobiles, hand tools, etc.	Potential to set up manufacturing of the separator technology in Wisconsin. The capacitor market is $300 million worldwide. Potential to create 8 new jobs.
Creative Culinary Solutions, Inc. (Hartland), UW-Whitewater	Extraction method for removing mercury from fish tissue for human and animal consumption.	A process to reduce/eliminate mercury contamination will improve both commercial and recreational fishing. Potential to create 10-13 new jobs.
Semba Biosciences, Inc. (Madison), Botanic Oil Innovations, LLC. (Spooner), UW-Oshkosh	Identification of antiviral compounds and extraction of nutraceuticals from cranberry.	Demonstrating antiviral property would enhance Wisconsin's cranberry industry. Identification of specific compounds would lead to valuable IP and marketing opportunities. Potential to create 14 new jobs.
Abba Makolin Waldron & Associates, LLC. (Freedom), UW-Stevens Point	Development of a method to maintain quality while reducing cost of papers by an optimal mix of virgin and recycled paper pulp.	Increased use of recycled paper pulp by 10 tons per paper mill per day, saving ~$1 million. Potential to create 3-4 new jobs.

Table 1: Funded Projects (continued)

Company and Campus	Project Description	Potential Benefits
VibeTech Inc, (Sheboygan), UW-Stout	Development of a vibration treatment device to ameliorate musculoskeletal atrophy and injury in geriatric patients or individuals who are unable to perform normal exercise routines.	Falls and related injuries in the US cost $19 billion per year. The number of people in some form of rehabilitation is rising and expected to reach 74 million by 2013. Thus the VibeTech device may have a significant market potential. Potential to create 4 new jobs.
Xolve Inc, (Platteville), UW-Platteville	Development of super-strong nanocomposites using graphene for automotive parts and other industrial applications.	The market for nanocomposite plastics was $586 million in 2009 and is projected to grow at 33% CAGR through 2015. It is expected that Honda Motor Company will enter into a large contract with Xolve, leading to new jobs and income.
Cool Science LLC, (Colfax), UW-Stout	Development of a pressure-balanced hydrogen fuel cell to power small electric vehicles. Simplified and novel design helps avoid costly computerized pressure balance systems.	US market for fuel cell is estimated to be $598 million in 2010 and is expected to reach $1.22 billion by 2014. The novel design by Cool Science is being patent protected and is expected to be installed in a golf cart by 2011 for demonstration purposes. Small utility vehicles, carts for university campuses, and golf carts are early targets. Potential to create 6 new jobs.

Table 2: Total Budgets Allocated to UW Campus for each Project

Campus (Partner Company)	Phase I	Phase II	Total	In-Kind from Company
UW-Stout UW-River Falls (Mensa)	$19,930	- $29,914	$49,844	$166,119
UW-Stevens Point (Abba Makolin Waldron & Associates)	$7,520	$82,486	$90,006	$92,303
UW-Whitewater (Creative Culinary Solutions)	$79,762	-	$79,762	$86,400
UW-Stout (VibeTech)	$60,378.50	$35,513.50	$95,892	$211,998
UW-Platteville (Xolve)	$30,207	-	$30,207	$35,275
UW-Oshkosh (Shamrock Energy)	$121,006	$49,622	$170,628	$205,500
UW-Stout (Cool Science)	$77,314	-	$77,314	$90,000
UW-Oshkosh (Semba/Botanic Oil)	$74,990	-	$74,990	$89,400
Subtotal	**$471,107.50**	**$197,535.50**	**$668,643**	**$976,995**
Patenting cost budgeted for 8 projects at $18,000 per patent	-	-	$144,000	-
Total			**$812,643**	**$976,995**

Table 3: Distribution of Funds for Project Activities

	UW-Stout UW-RF Mensa	UW-Osh Shamrock Energy	UW-WW Creative Culinary	UW-SP AMW	UW-Platt Xolve	UW-Stout VibeTech	UW-Osh Semba/ BOI	UW-Stout Cool Science	Total
Salary Res Assistants	0	$133,208	$57,800	$6,294	0	$74,820	$52,020	0	$324,142
Faculty salary	$19,044	0	$9,754	0	0	$4,761	$11,907	0	$45,466
Student internship	$15,200	$4,920	0	$3,942	$3,157	$2,311	$2,563	$7,189	$39,282
Materials/ supplies	$10,264	$14,500	$12,208	$15,000	$1,950	0	$6,000	$22,000	$81,922
Travel	0	0	0	0	0	0	0	0	0.0
Prototypes Contracts Equipment	$5,336	$18,000	0	$64,770	$25,100	$14,000	$2,500	$48,125	$177,831
Total	**$49,844**	**$170,628**	**$79,762**	**$90,006**	**$30,207**	**$95,892**	**$74,990**	**$77,314**	**$668,643**

Table 4: Active Discussions are Ongoing with the Following Companies and Campuses for Potential WiSCAP Projects in 2011.

	Company, Campus	**Project**
1	Xolve, Inc (Platteville), UW-Platteville	Nanocellulose for industrial applications
2	Fused Innovation LLC (Neenah), UW-Oshkosh, UW Madison, UW-Stout	Virtual reality based tools for patient rehabilitation
3	Procubed LLC (Kenosha), UW-Stout, UW-Parkside	Innovative wheel chair
4	Ezenwa Biomedical Engineering LLC, (Milwaukee). UW-Stout, BayCare Clinic	Development of smart prosthetics
5	AquaCareH2O (Superior), UW-River Falls, UW-Stout, UW-Eau Claire	Xanthan based products for dysphasia for neonatal and young infants
6	Perceptral LLC, Racine, UW-Parkside	Diagnostic methods based on acoustic perceptual event segmentation
7	Ictect, Inc., Sturtevant, UW-Parkside	IT tools for education

For more information on WiSCAP contact:

Maliyakal John
WiSys Technology Foundation
608-265-2135: Maliyakal@wisys.org

Contacts at small companies regarding ongoing projects:

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Mark Mueller
Botanic Oil Innovations, Inc
715-635-7513: Mueller@botanicoil.com

Lisa Johnson
Semba Biosciences, Inc
608-441-8327
lisa@sembabio.com

Supporting documents attached:

1) WiSCAP funding proposal guidelines

Wisconsin Small Company Advancement Program (WiSCAP)

Request for Proposals
2011-12 Funding Cycle

WiSys Technology Foundation

January 3, 2011

Contact:
Maliyakal John
Managing Director, WiSys Technology Foundation
614 Walnut Street, 13th Floor, Madison, WI 53707
E-mail: Maliyakal@wisys.org; Phone: (608) 265-2135

Request for Proposals
Wisconsin Small Company Advancement Program (WiSCAP)
2011-12 Funding Cycle

WiSys Technology Foundation offers WiSCAP grants to UW comprehensive campuses to develop technology innovations in partnership with Wisconsin small companies to create business growth and jobs. Companies must submit a research proposal jointly with a UW comprehensive campus to WiSys Technology Foundation.

WiSCAP is a new initiative. WiSys reserves the right to modify the current guidelines and criteria in consultation with UW System.

PROPOSAL PROCESS OVERVIEW

Step 1. The company may choose to execute a Confidential Disclosure Agreement with WiSys Technology Foundation prior to discussing details of a project to protect any proprietary information. WiSys shall keep all company proprietary information confidential. A Confidential Disclosure Agreement Form can be found at www.WiSys.org under the "For Industry" tab.

Step 2. WiSys shall facilitate discussions with a UW faculty member and a company representative to prepare a project proposal, which must include the following 5 sections: Introduction, Objectives, Technology Development (R&D), Economic Impact and Budget. (See WiSCAP Full Proposal Format section for details.) WiSys, at its discretion, may divide the project funding into two phases. Phase I funding may be awarded in 2011 and, based on project progress, Phase II funding may be awarded in early 2012 (before May 2012).

WiSCAP ELIGIBILITY AND CONDITIONS

Introduction

- The purpose of WiSCAP is to apply the intellectual potential of UW faculty, staff and students, as well as campus resources, to advance business growth in Wisconsin.
- Generate knowledge and provide industrial research experience to UW students.
- Funding for the 2011-12 year is allocated to UW comprehensive campuses to support the research and development of a product idea from a Wisconsin small company.
- Full proposals are to be submitted jointly by UW faculty and staff, and a Wisconsin small company in all technology/product development areas.
- Funding is available for one year and may be offered in two phases, provided sufficient advancement of research has occurred based on milestone achievements. All funding must be transferred to System campuses for research use before May 2012.
- WiSys will maintain the full confidentiality of all submitted grant applications and documents.

Eligibility

- Wisconsin companies with less than 25 employees are eligible to partner with UW campuses other than UW-Madison and UW-Milwaukee.
- Proposals with multi-campus partnerships, including Madison and Milwaukee will be considered.
- Proposals may request a maximum of $100,000 in funding. Projects requiring more than $100,000 must consult WiSys before applying.
- The partnering company must provide matching funding and/or in-kind support (1:1). State government funds cannot be used as matching funding. In-kind support may include technical consultation, use of instruments, equipment, software, facilities, quantifiable technical know-how, and product testing.

Selection Criteria

- Among equally strong proposals, a proposal will be more competitive if it:
  1. Creates jobs at the UW campus and partner company;
  2. Includes a commitment for full or partial fiscal support from a private partner with appropriate agreements to protect UW intellectual property and share economic benefits among participating institutions;
  3. Has appropriate and significant student participation;
  4. Can demonstrate that successful outcomes can be marketed in the immediate future (1-4 years after the completion of the R&D);
  5. Involves multi-campus collaborations;
  6. Is cost-effective. This includes prudent use of funds for fringe benefits and salaries. WiSys will work with campuses to adjust fringe benefits most cost-effectively and may request assistance from campus to supplement fringe benefits.

Guidelines for WiSCAP Full Proposals

- Full proposals must be endorsed by the Provost or designated officer of the System campus applying for the grant and the representative for the partner company.
- Full proposals must be submitted to WiSys Technology Foundation at any time during January 2011 through March 2012, but funding will be based on availability.

Multi-Campus Applications

- For collaborative WiSCAP proposals originating from more than one campus, the leading campus should submit the full application along with cover page and budget page for that institution. Other supporting campuses should submit a cover page and budget page only, using the same project title.
- All proposals become the property of the University of Wisconsin System.

Intellectual Property (IP) and Licensing Based on Project Outcomes

- Agreements are negotiated on a project by project basis. Generally, outcomes from WiSCAP projects are expected to fall into two categories: 1) No new IP generated, and 2) New IP generated. Inventorship is determined according to US patent laws. IP includes, patents, copyrights, trade or service marks, or trade secrets. See WiSCAP Project Outcomes, IP and Licensing Options (Appendix A).

WiSCAP Full Proposal Format

Full proposals should include a cover page and two budget pages (templates attached) and be organized into five sections as described below. Full proposals should not exceed a combined length of 9 pages, excluding cover page and budget forms. Pages should be single-spaced using 12-point type with at least 0.5 inch margins. WiSys strongly recommends that the faculty and partner company consult with our staff prior to and during proposal preparations.

Page Length Requirements

Section 1 & 2:	Introduction, Objectives	Max 2 pages (Not including cover page)
Section 3:	Technology Development (R&D)	Max 4 pages
Section 4:	Economic Impact	Max 2 pages
Section 5:	Budget	Max 1 page narrative (Not including budget forms and subcontractor quotes)

Section 1: Introduction

- Partner company information (year founded, state of operations status (LLC, Inc.), number of full-time and part-time employees.
- Proposed technology/product (identify product or technology).
- Describe why the technology/product is important and how it differs from existing technology/products. (How is technology/product superior to existing solutions.)
- List competing technologies/products or companies if known.

Section 2: Objectives

- List objectives in bullet points. Objectives are outcomes of R&D and are product focused.

Section 3: Technology Development (R&D)

- State the problem to be addressed and proposed solution.
- Describe the technology development methods. (List roles of UW and partner company.)
- List milestones to be achieved and corresponding timelines. Provide measurable, realistic milestones for the project. Performance evaluations of these milestones will be used to determine the success of your project.
    - Milestones are project outcomes and closely related to objectives in Section 2.
    - Hiring a technician or publishing a paper is not a milestone.
    - Development of a functional prototype, completing a software development, demonstrating efficacy of a process or product or overcoming a key technical hurdle are milestones.
- Describe the project's IP potential. Describe known competing technologies in the market place and how the proposed technology development may lead to new IP.

Section 4: Economic Impact

- How does the proposed technology or product impact business growth of the partner company?
- Provide any available market estimates, product prices, production costs, and competitive advantages of the new product for US and/or world.
- Market potential, including size, risks, time of entry and US and/or world market share.
- Barriers to market. (Example: capital needed to manufacture.)

Number of potential new jobs expected to be created in the UW System and the company. (Indicate approximate salary range of new jobs.)

Section 5: Budget

- A short budget narrative (not to exceed 1 page) explaining and supporting information included on the budget forms (templates attached) should be prepared as part of the Full WiSCAP proposal. A budget form should be completed for each participating UW campus and for each partnering company. (Budget forms and subcontractor quotes are not included in the 1 page maximum limit.)
- Dollar-to-dollar company match or in-kind support is required. WiSys may at its own discretion divide the project/budget into two phases. Phase I funding may be allocated with the condition that if milestones are met and project progress is satisfactory, phase II funding will be provided before May 2012. WiSys reserves the right to make this decision unilaterally.

Guidelines for the Evaluation of WiSCAP Proposals 2011-12 Funding Cycle

The purpose of WiSCAP is to provide funding *"to promote Wisconsin small company growth, creation of high-paying jobs at UW campuses and creation of knowledge and student learning."*

Primary Evaluation Criteria Checklist

WiSCAP proposals for product development will be read and evaluated against the following criteria. The overall rating will reflect WiSys's assessment of how well the project addresses each of these areas. WiSys may consult external experts as needed.

1. **Technical Merit:** Suggested technical solution appears to be sound, feasible in the proposed timeline, cost effective and is timely.
    - Technology may be applicable in more than one product or process
    - Has potential for student learning, advancement of scholarship and faculty interest
    - Has potential for IP
    - Has potential for further extramural funding
2. **Market Merit:** The proposal substantially improves the business of the partner company.
    - Has substantial US and/or world market potential (is quantifiable and is applicable to a single product or multiple products)
    - Results in a new product or service
    - Results in a substantially superior product compared to the existing product (an incremental improvement to the product is not sufficient)
    - Reduces costs and/or increases efficiency and productivity and/or improves sustainability
    - Improves market share of the company
3. **Job Creation Potential:** The project includes well-developed milestones and metrics for evaluating its impact at the end of the grant period.
    - High-paying job creation potential (university or company)
    - Competitive advantage for the company

For additional information on WiSCAP, contact:

Maliyakal John
WiSys Technology Foundation
(608) 265-2135
maliyakal@wisys.org

WISCONSIN SMALL COMPANY ADVANCEMENT PROGRAM
(WiSCAP)
COVER PAGE
Fiscal Year 2011-12

UNIVERSITY OF WISCONSIN SYSTEM CAMPUS:	**AMOUNT REQUESTED: $** **IN-KIND CONTRIBUTION: $**
PRINCIPAL INVESTIGATOR NAME:	**PRINCIPAL INVESTIGATOR TITLE:**
P.I. DEPARTMENT ADDRESS: **DEPARTMENT PHONE:** **FAX:** **E-MAIL:**	
PARTNER COMPANY NAME:	**COMPANY CONTACT AND TITLE:**
COMPANY CONTACT ADDRESS: **PHONE:** **FAX:** **E-MAIL:**	
PROJECT TITLE:	
PROJECT SUMMARY: Maximum 200 words (Describe major research objectives and expected outcomes.)	
ESTIMATED US AND/OR WORLD MARKET SIZE:	
UW JOBS CREATED:	**COMPANY JOBS CREATED:**

Signature indicates endorsement by the Provost's Office.

Signature of Provost **Date**

Signature of Company Representative **Date**

Section 1 & 2: Introduction and Objectives

Maximum 2 pages.

Introduction

1.1 Partner Company Information

Please include the year founded, state of operations status (LLC, Inc.), number of full-time & part-time employees.

1.2 Proposed Technology/Product

Identify Product or technology

1.3 Impact of the Technology or Product

Describe why the technology/product is important and how it differs from existing technology/products. (How the technology/product is superior to existing solutions.)

1.4 List Competing Technologies, Products or Companies if Known

Objectives

List objectives in bullet points. Objectives are outcomes of R&D and are product focused.

-
-
-
-
-
-
-
-

Section 3: Technology Development (R&D)

Maximum 4 pages.

3.1 State the Problem to be Addressed

3.2 State the Proposed Solution

3.3 Technology Development Methodology

3.3.1 UW Partner Development Steps

3.3.2 Company Partner Development Steps

3.4 Timeline, Milestones and Metrics

List milestones to be achieved and anticipated date of completion. Provide measurable, realistic milestones for the project. Performance evaluations of these milestones will be used to determine the success of your project. Please include preferred project start and end dates.

Milestones are project outcomes and closely related to objectives in Section 2. Hiring a technician or publishing a paper is not a milestone. Development of a functional prototype is a milestone. Achievement of target performance levels (both technical and economic) to make the product a commercial success are milestones.

Milestone	*Anticipated Date*	*How Measured*
Project Start		

Project Completion		

Section 3.5 Describe the Project's IP Potential

Section 4: Economic Impact

Maximum 2 pages.

Section 4.1 Impact of Technology or Product on Business Growth of Partner Company

Section 4.2 Market Overview

Provide any available market estimates, projected product prices and production costs of the new product/technology for US. &/or world. Describe competitive advantages anticipated through adaptation of new product/technology. (If necessary, work with WiSys to get market data.)

Section 4.3 Market Potential

Include size, risks, time of entry and market share for US &/or world. Contact WiSys for market data development support.

Section 4.4 Barriers to Market

Example: capital needed to manufacture.

Section 4.5 Job Creation

Number of potential new jobs expected to be created in the UW System and the Partner Company. Indicate approximate salary range of jobs.

Section 5: Budget

Maximum 1 page (not including budget forms and subcontractor quotes)

Dollar-to-dollar company match or in-kind support is required. State government funds cannot be used as matching funding. In-kind support may include technical consultation, use of instruments, equipment, software, facilities, quantifiable technical know-how, and product testing. WiSys may at its own discretion divide the project/budget into two phases. Phase I funding may be allocated with the condition that if milestones are met and project progress is satisfactory, phase II funding will be provided before May 2012. WiSys reserves the right to make this decision unilaterally.

Section 5.1 Budget Narrative

A short budget narrative (not to exceed 1 page) explaining and supporting information included on the budget forms (templates attached) should be prepared as part of the Full WiSCAP proposal.

Section 5.2 Budget Forms

A budget form is required for each participating UW campus and for each partnering company (templates attached). Budget forms and subcontractor quotes are not included in the 1 page maximum limit.

Wisconsin Small Company Advancement Program (WiSCAP)
University of Wisconsin System
2011-12 BUDGET FORM

PROJECT TITLE:				
UW COMPREHENSIVE CAMPUS:		Salary Requested	Fringe Requested	Funds Requested
SENIOR PERSONNEL (Indicate Salary Classification or Non UW Employee)				
1. **Principal Investigator:**				
2.				
3.				
4.				
OTHER PERSONNEL (Non-Doctoral Institutions) **(Note: Funding is not provided for tuition remissions.)**	Fringe Rate			
1. Faculty/Academic Staff	44.5%			
2. Classified Staff	57%			
3. Limited Term Employees (LTE)	46%			
4. Research Associates and Interns	34%			
5. Ad Hoc Program Specialist and Undergraduate Assistants	7.65%			
6. Student Hourly	2.5%			
7. Non UW Employee **(Do not calculate fringe on non-UW employees)**	0%			
Salary Subtotal				
CAPITAL EQUIPMENT (For items over $1000, list each item separately) **Subtotal**				
SUBCONTRACT COSTS (Identify subcontractor if known. Must attach quotes, which are not included in maximum 2 page budget limit.) 1. Technology/process/prototype development costs 2. Material costs 3. Drafting/designing costs 4. Testing costs 5. Delivery charges 6. Others (explain) **Subtotal**				
TRAVEL 1. Mileage _____ 2. Meals _____ 3. Lodging _____ 4. Other (explain) **Subtotal**				
SUPPLIES & EXPENSES (List items) **Subtotal**				
TOTAL GRANT REQUEST				

Partner Company
2011-12 BUDGET FORM

PROJECT TITLE:			
PARTNER COMPANY SERVICES/FUNDS:	Hours Pledged	$ Per Hour	Funding Value
Funds			
Consultation Services (List expertise)			
Technical Expert Services			
Prototype Testing Services			
Marketing Services			
Computer Services			
Use Of Facilities (Indicate type of use and value per sq.ft.)			
Use of Instrumentation (List and specify value/hour)			
Value of Software provided to project			
Value of Hardware provided to project			
Value of Underlying Technology Development Cost provided to project			
Value of Underlying Market Development Cost provided to project			
Other			
Salary Subtotal			
TRAVEL (for more information - http://www.uwsa.edu/fadmin/travel.htm) 1. Mileage _____ 2. Meals _____ 3. Lodging _____ 4. Other (explain) **Subtotal**			
SUPPLIES & EXPENSES (List items) **Subtotal**			
TOTAL PARTNER COMPANY FUNDS			

Appendix A

IP, Licensing, and Repayment Options for WiSCAP Projects

WiSCAP agreements and licenses for IP that result from WiSCAP projects will be negotiated on a project-by-project basis. WiSys and the Company may negotiate suitable terms for a specific project; however, the following guidelines provide a framework and starting point for the negotiations.

Generally, the results of WiSCAP projects are expected to fall into one of two categories:

1) No new Intellectual Property ("IP") is generated, or
2) New IP is generated.

Even when no IP is generated, the WiSCAP project may benefit the Company. Guidelines are provided for parties to negotiate appropriate agreements under such conditions. When new IP is generated, it may be owned by 1) the Company, 2) by WiSys, or 3) jointly owned by both the Company and WiSys depending on inventorship. Inventorship for any IP will be determined according to US patent laws. IP includes, but is not limited to, patents, copyrights, trade or service marks or trade secrets.

The following tables summarize the various scenarios and options for the parties to negotiate appropriate agreements.

Table 1: WiSCAP Project Did Not Generate IP

IP Outcome	Company Obligation
No IP generated and no market benefit for Company generated from WiSCAP project.	No reimbursement obligation by the Company
No IP generated, but marketing benefit for company. Examples of market benefits may include research papers that can be referenced for marketing, data obtained for inclusion in extramural funding, efficacy of product verified, comparison with competing products or technologies, etc.	Negotiate repayment of direct R&D costs (in installments).

Apendix A (Continued)

Table 2: WiSCAP Project Generated IP

IP Ownership	Licensing Options	Company Obligations
Inventorship by company only. (Sole ownership rights to the company.)	Company grants paid up research license (non-commercial) to UW for research purposes.	Negotiate reimbursement of direct WiSCAP-paid R&D costs in installments No other royalty obligation by the Company
Inventorship by UW only. (IP is assigned to and owned by WiSys.)	Option 1: Non-exclusive license to Company WiSys free to license the technology (non-exclusive) to third parties.	Royalty bearing license agreement with the Company, containing terms and conditions typically found in license agreements between industry and universities.
	Option 2: Exclusive license to Company	Royalty bearing license agreement with the company, containing terms and conditions typically found in license agreements between industry and universities.
Inventorship by Company and UW. (Joint IP owned by WiSys and Company.)	Option 1: Company has non-exclusive rights to the IP by virtue of its joint ownership If Company has no interest in exclusive license, WiSys is free to license the technology to third parties (non-exclusive license).	Negotiated installment reimbursement or royalty sharing agreement to cover direct WiSCAP-paid R&D costs only.
	Option 2: Exclusive license to Company	Royalty bearing license agreement with the Company, containing terms and conditions typically found in license agreements between industry and universities.